

Operating Instructions

Swing Door

Type MPG 12/22

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1. Delivery

Scope of supply:

	Upper housing with cover	Pillar left	Pillar right	Swing door	Induction loop Entry	Induction loop Exit	Induction loops on both sides
MPG12C-XX0	X	X		X			
MPG12C-XX1	X	X		X	X		
MPG12C-XX2	X	X		X		X	
MPG12C-XX3	X	X		X			X
MPG22C-XX0	X	X	X	X			
MPG22C-XX1	X	X	X	X	X		
MPG22C-XX2	X	X	X	X		X	
MPG22C-XX3	X	X	X	X			X

Electronic control unit MUC + SPS (NOT with MPG12/22C-XX0)

1 x Set of documents inside the top cover

1 x Fixing anchors (in Europe only)

2 x Keys for service door

Technical Data:	Type	MPG12/22
Voltage	VAC	230
Frequency	Hz	50
Current max.	A	2.0
Duty Cycle	%	100
Protection	IP	54
Dimensions	Length	mm
	Width	mm
	Height	mm
Weight	Kg	250 Kg

2. Safety

2.1 General safety notes

The Magnetic swing door has been designed, built and tested according to the latest technology. Although it has left the factory in a fully operational and safe condition, it is important that the installation is carried out correctly. Therefore the operating instructions must be read carefully and the safety notes must be observed.

The manufacturer declines any liability and warranty in case of incorrect use and use for purposes other than intended.

2.2 Use for the intended purpose

The Magnetic swing door may be used only to control pedestrians entering or exiting restricted areas, usually under surveillance. The wide construction of the swing door allows taking along various objects, e.g. bicycles.

The Magnetic Universal Controller may be used only for controlling the Magnetic swing door. Any other use is not permitted.

Conversions and modifications to the turnstile or to the control modules are not permitted.

2.3 Identification of risks

Possible risks and notes are identified with the following symbols in the operating instructions:



Warning!

This symbol in the operating instructions identifies actions and conditions that can give rise to danger for life and limb of persons.

Observe the instructions carefully.



Caution!

All actions and conditions that can possibly give rise to damage to objects are identified with this symbol in the operating instructions.

Observe the instructions carefully.



Note!

Relevant and useful notes for the user are identified with this symbol.

2.4 Safety notes

- Disconnect all external opening or closing devices (remote control, control desk, etc.) during maintenance work.
- It is prohibited to install the barrier without proper mounting to the foundation.
- A main power switch or residual current operated device is compulsory.
- Risk of bodily harm while cover is open.
- All swing doors require low maintenance.
- An annual safety check has to be realized (see test book).
- Documentation should be easily accessible.
- Before commissioning make sure that all electrical and functional features are tested.
- The electrical wiring of the barrier must comply with the included drawings.
- Only certified and trained electrical technicians may perform the electrical connections.

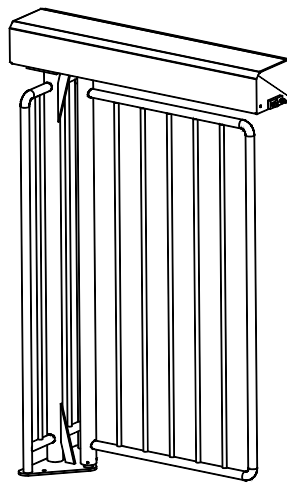
Operating instructions

- Only certified and trained electrical technicians may remove covers for mains plug, mains receivers or wirings.
- Before repairing electrical failures disconnect fuse.
- Risk of bodily harm when closing the cover.
- During maintenance work the fixing bolts must be checked and tightened, if necessary.
- Current carrying components like transformers, solenoids, resistors, stator housings of motors, lamps etc. shall not be touched while in operation as the warm temperature of the surfaces could cause burns.
- Predictable fraudulent use may occur when somebody tries to pass the swing door when it is closed or is beginning to close. Therefore, it is very important that the operator makes sure that cyclists dismount their vehicles when passing the swing door.

3. Product description

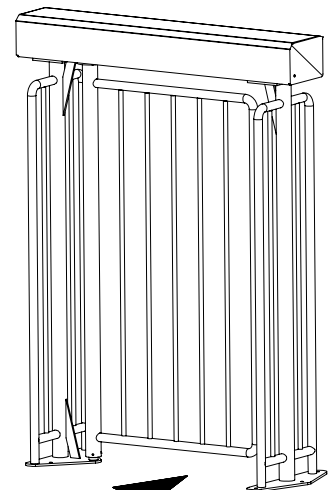
The series of MPG swing doors have been designed to control cyclists, persons in a wheelchair or similar user groups entering or exiting restricted areas in high security situations which is not possible with our standard MPT turnstiles. In principle, there is a MPG12 which can only be mounted in connection with a MPT turnstile, and there is the MPG22 in „stand alone“ version. Each of both products may be delivered with or without induction loops. The door movement of both types is $2 \times 90^\circ$. The controlling is realized by access control elements with or without additional loop functions.

Definition of the different types:



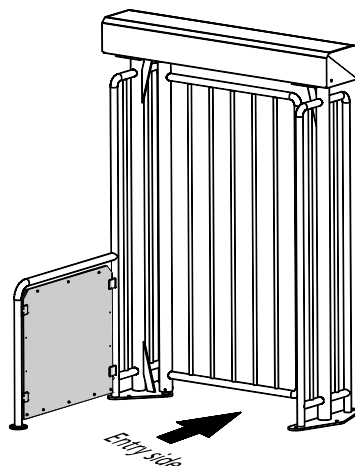
MPG12C-XX0

Fig.1



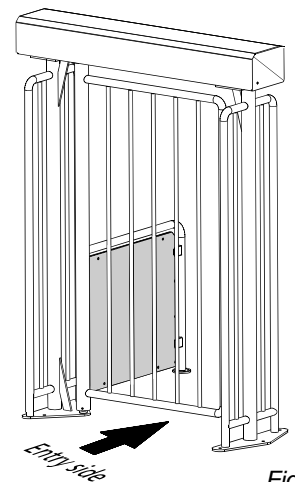
MPG22C-XX0

Fig.2



MPG22C-XX1

Fig.3



MPG22C-XX2

Fig.4

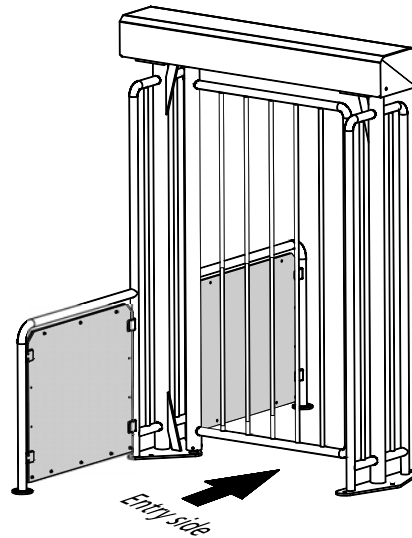


Fig.5

MPG22C-XX3

Above pictures show the definitions in respect to the different types (code of types) and the entry direction to the induction loops. The definition of the loop configuration is indicated in the fig. 2-5 (MPP22, definition XX0-XX2). MPG12 and MPG22 are identical in construction.

4. Foundation

A level concrete mounting surface is required to secure the turnstile housing. For the dimensions, please refer to enclosed foundation plans. The cables should finish a minimum of 5 meters above the finished concrete surface.

NOTE: This foundation is also required in connection with a foundation frame.

Conduits for mains supply and data lines should finish 50 mm approx. above foundation.

Operating instructions

Fig. 6 Foundation plan MPT 3x + MPG 12

Foundation, smooth finish to be positioned in water in a level and horizontal manner

Lay separate conduits for power supply and data cables, 50 mm approx. above foundation.

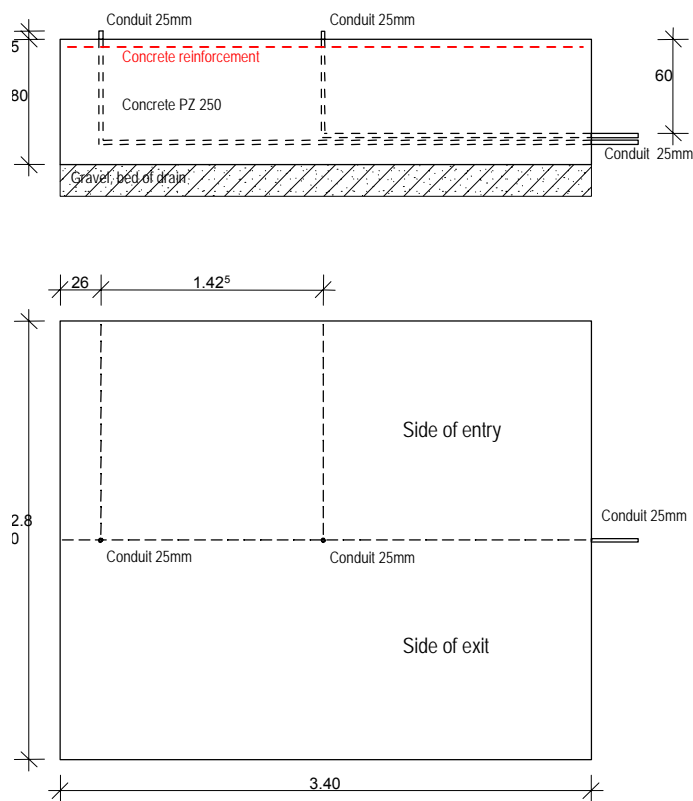
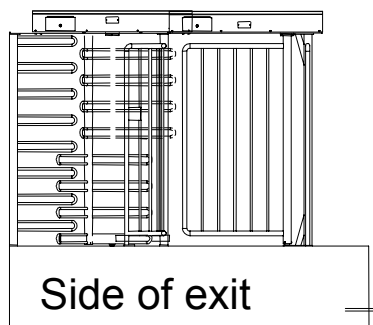


Fig.6

Abb. 7 Foundation plan MPG 22

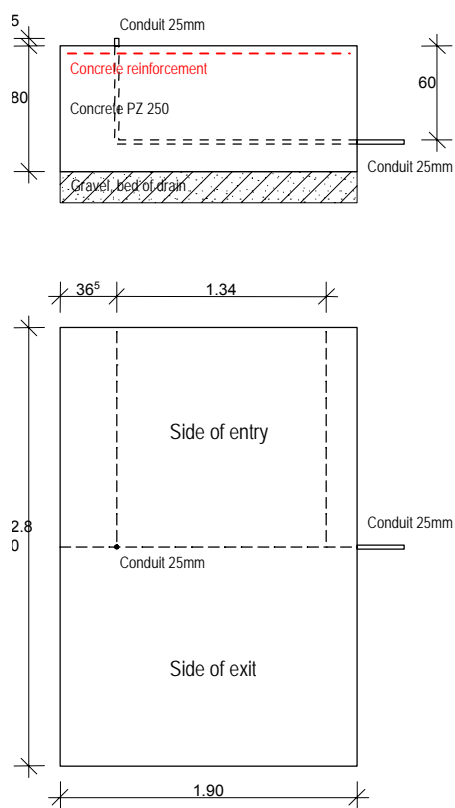
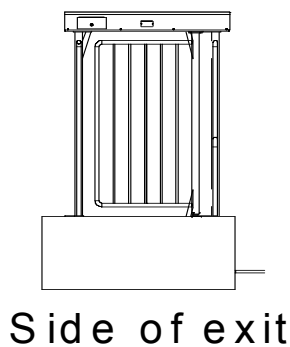


Fig.7

4.1 Foundation frame

The foundation frame is required for swing doors to be mounted on a sub ground, for example in case of paving stone. A level concrete mounting surface is required for correct mounting of the foundation frame. It should be 150 mm approx. below the finished surface.

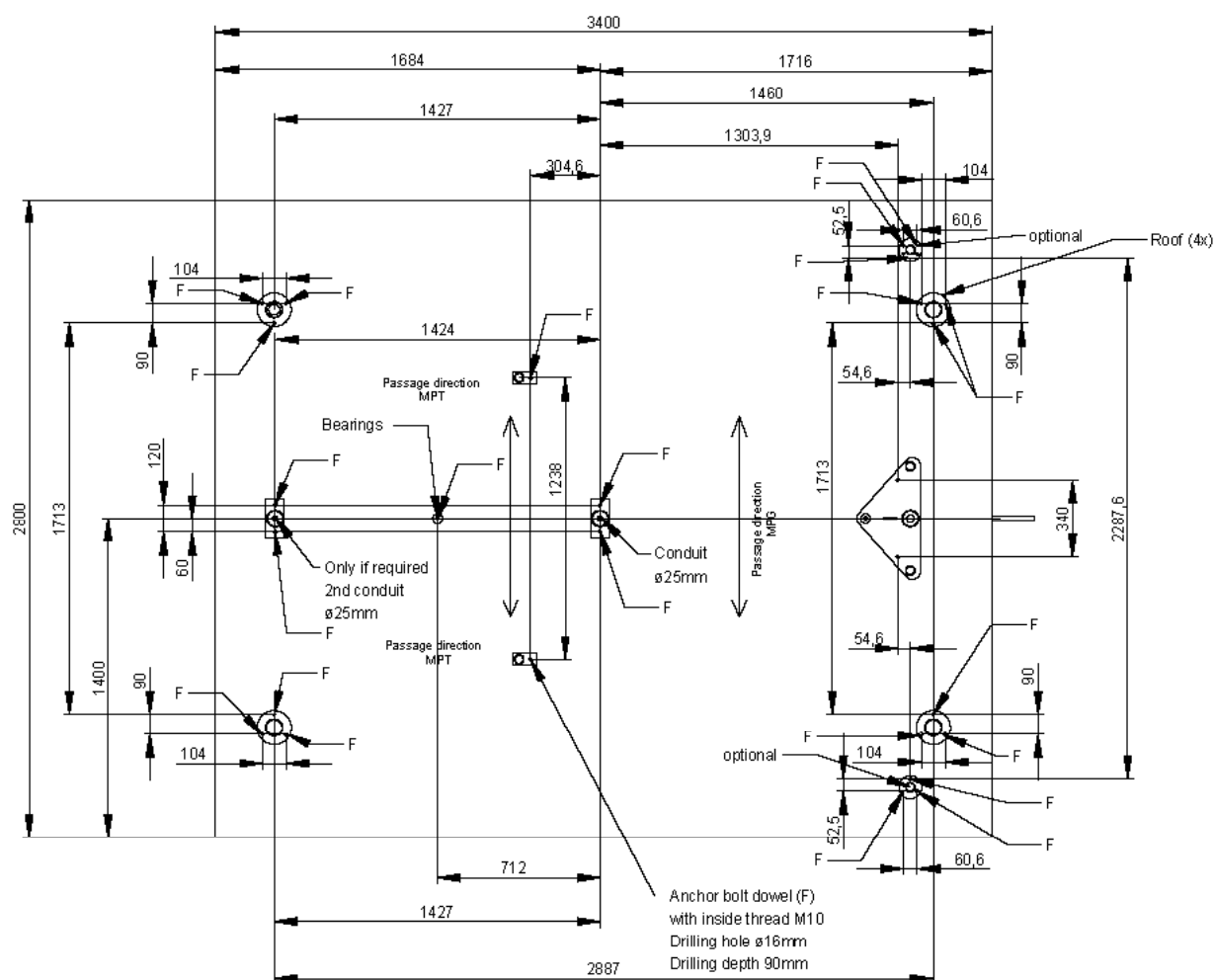


Fig.8

The sketch shows the different location points when mounting the MPG 12 with MPT 3X

Operating instructions

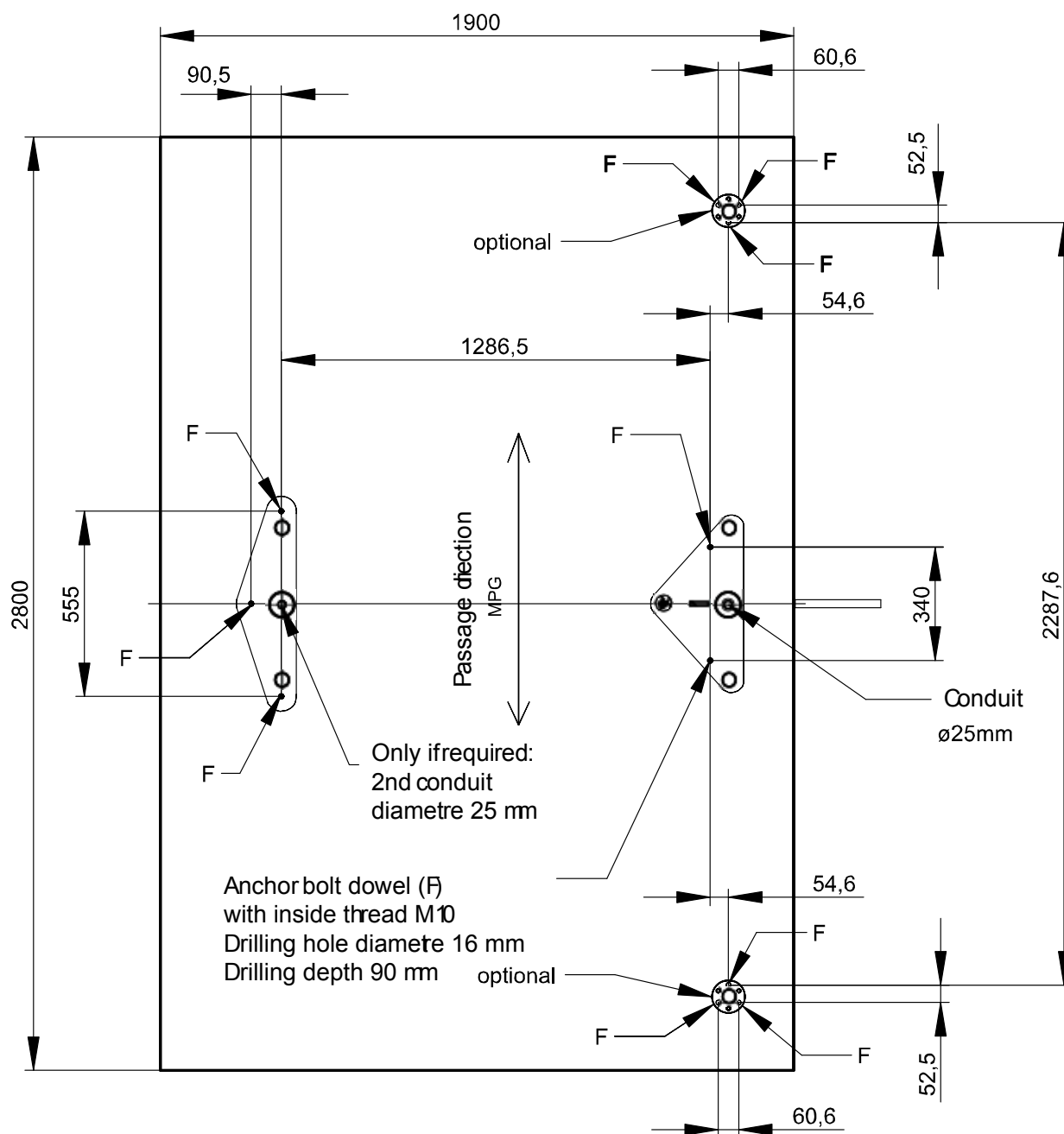


Fig. 9

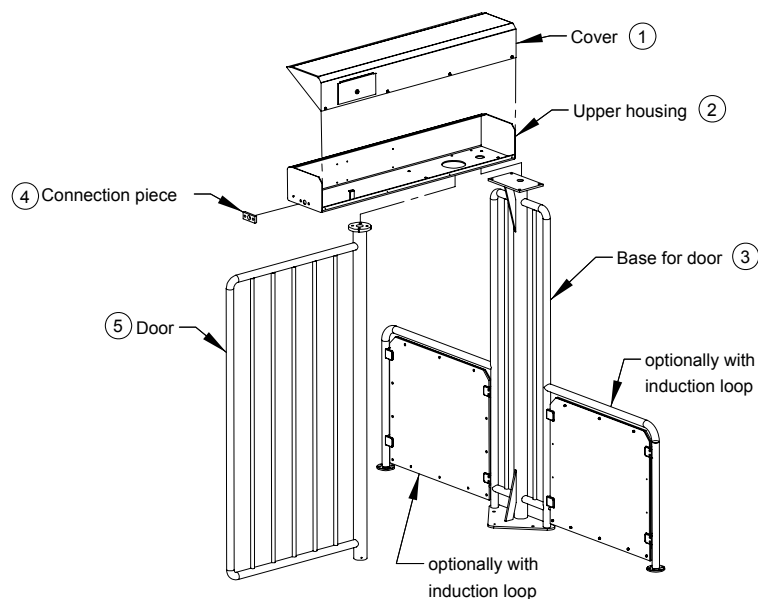
The sketch shows the location points for MPG22 alternatively also available with induction loops

5. Assembly and installation

5.1 Installation process MPG12 (above ground foundation)



- Before starting the installation you have to determine or to ensure on which side is the entry and exit of the door (please see point 3, product description). It is very important that the service door is always located at the so-called "secure area". After this determination parts 2 and 3 shall be aligned respectively and be put aside (rotation centre is on left side when standing at entry side).
- Make foundation drillings for part 3.
- Mount threaded rod (see enclosed separate description).
- Wait till bolts are cured (see separate description).
- Mount part 3 with the supplied fixing screws.



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Fig. 10



- Place part 2 upon part 3, mount the connection piece 4 and then screw all parts together. Take care of the cable bushing!!
- Put part 5 over the lower bearing and then screw together from the top part 5 with plain washers and flange by means of 4 x M16 x40 (Please observe point 7: Locking unit).
It is very important to pay attention that the motor flange is in the correct position. This can be recognized when the key slot of the flange - observed from the middle of the shaft - shows in passage direction (parallel to the closed door). The key slot may not be between the drive shaft and base (part 3), see fig.

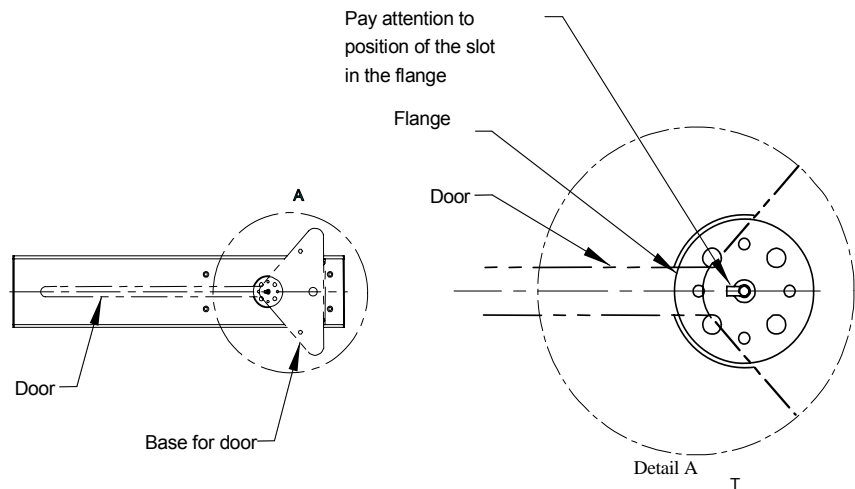


Fig. 11

- Mounting of locking unit according to point 7: Locking unit
- Now tighten all fixing bolts

5.2 Installation process MPG22 (above ground foundation)

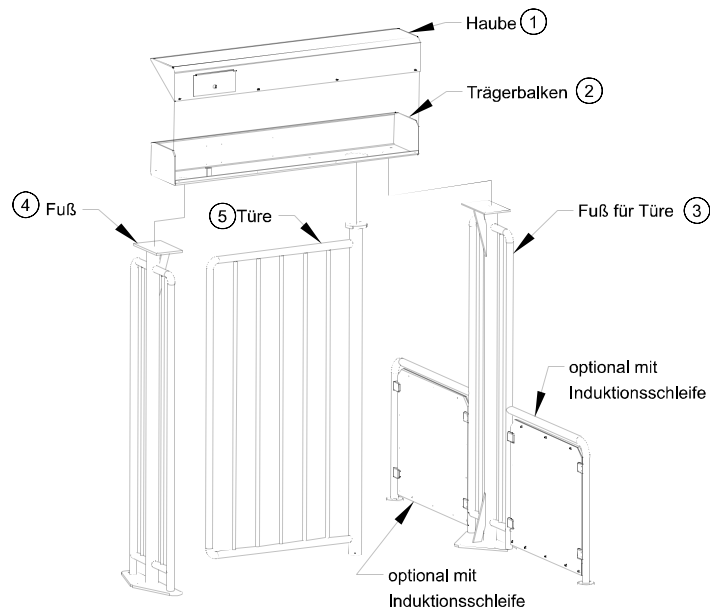


Fig. 12

- Before starting the installation you have to determine or to ensure on which side is the entry and exit of the door (please see point 3, product description). It is very important that the service door is always located at the so-called "secure area". After this determination parts 2, 3 and 4 shall be aligned respectively and be put aside (rotation centre is on left side when standing at entry side).

- Make foundation drillings for part 3 and 4 (see foundation/drilling plan).
- Mount threaded rod (see enclosed separate description).
- Wait till bolts are cured (see separate description).
- Mount parts 3 and 4 with the supplied fixing screws.
- Place part 2 upon parts 3 and 4 and then screw all parts together. Take care of the cable bushing!!
- Put part 5 over the lower bearing and then screw together from the top part 5 with plain washers and flange by means of 4 x M16 x40 (Please observe point 7: Locking unit).
It is very important to pay attention that the motor flange is in the correct position. This can be recognized when the key slot of the flange - observed from the middle of the shaft - shows in passage direction (parallel to the closed door). The key slot may not be between the drive shaft and base (part 3), see fig.

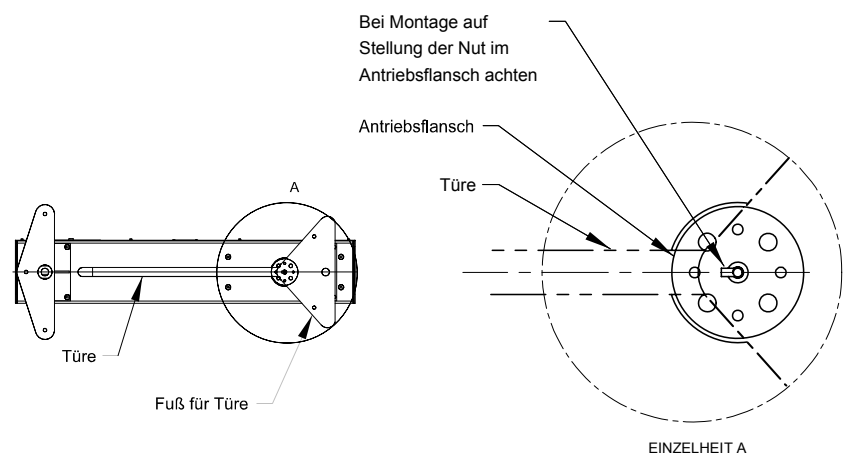


Fig.13

- Mounting of locking unit according to point 7: Locking unit
- No tighten all fixing bolts

5.3 Fixing on foundation frame

Mounting of the foundation frame: correct positioning of foundation frame, drilling of fixing holes, installing fixing bolts, laying the foundation frame into water by means of jackscrews and tightening the foundation frame. Pay attention to correct cable bushing to the turnstile. Conduits may not be squeezed. Pay attention to the curing time of plugs. Installation of swing door is then made on the foundation frame as on a normal foundation. On positioning the foundation frame has to be considered – such as on fixing on the foundation frame - that the rotation point of the swing door (view from the entrance) is on the left side (the big triangular plate on the foundation frame may be a help). When mounting the MPG12 onto the foundation frame you have to pay attention that the frame is mounted in connection with the MPT foundation frame. This is important because both frames have to be screwed together.

5.4 Installation of guide line with induction loops

Description of installation procedure:

The lower flange is pre-mounted in our factory. Please check that the lower flange can be moved.

Screw the guide line with the three fixing screws onto the lower flange and then insert the three threaded pins and screw them together simultaneously, if possible.

This is important because otherwise could occur that the two flanges have an oblique position to each other. Afterwards, please make sure all screws are fix.

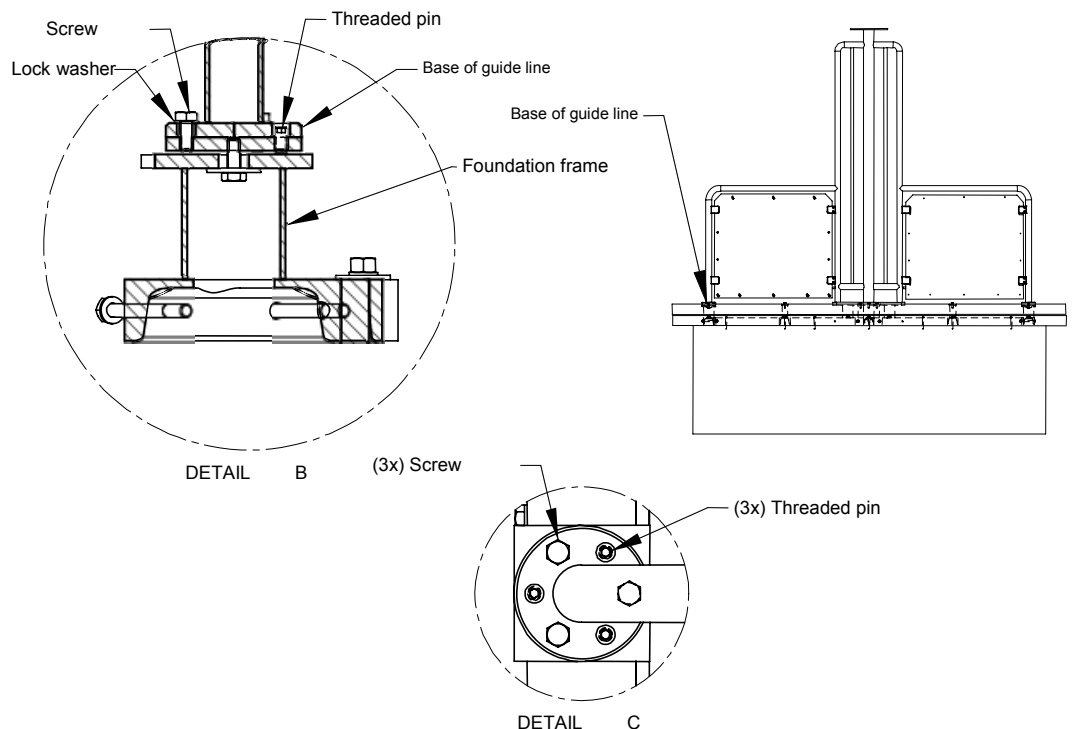


Fig.14

5.5 Opening of the top cover

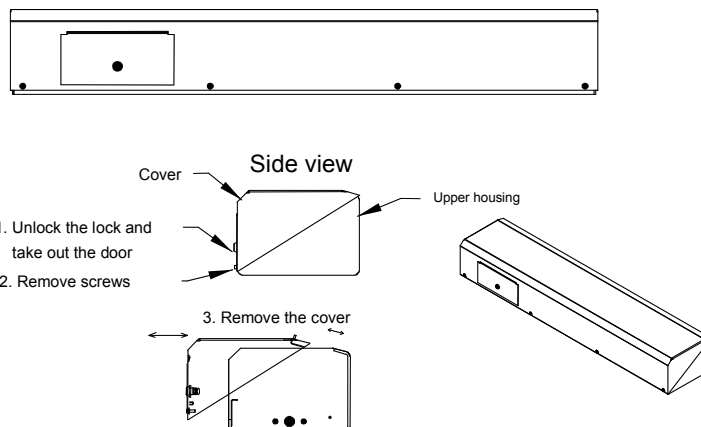


Fig.15

After opening of the lock and removal of both securing screws the cover can be removed and put aside (please take care of possible damage of the paint).

5.6 Assembly of roof with drain

As there are many different possibilities for assembly the documentation of the roof with drain is added to each delivery as a separate mounting instruction.

The roof with drain is not fixed to the MPG. Therefore, it has to be considered as a product separated from the MPG. Only when using a foundation frame there is a relation to the MPG.

6. Electrical connections

Connection of mains supply should only be performed by a certified electrician and according to the connecting diagram or after discussion with the supplier.

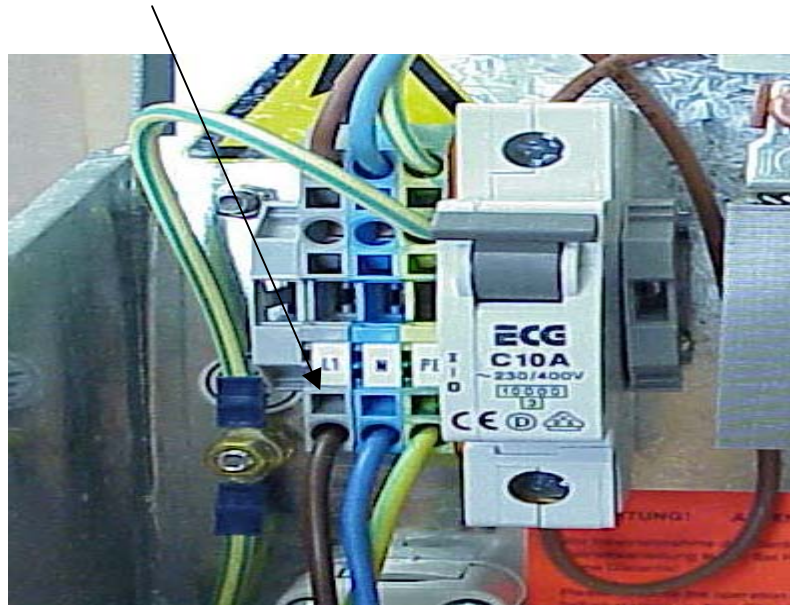


Fig.16

Connection unit with control unit MUC10 (Fig. 13 MPG 22)

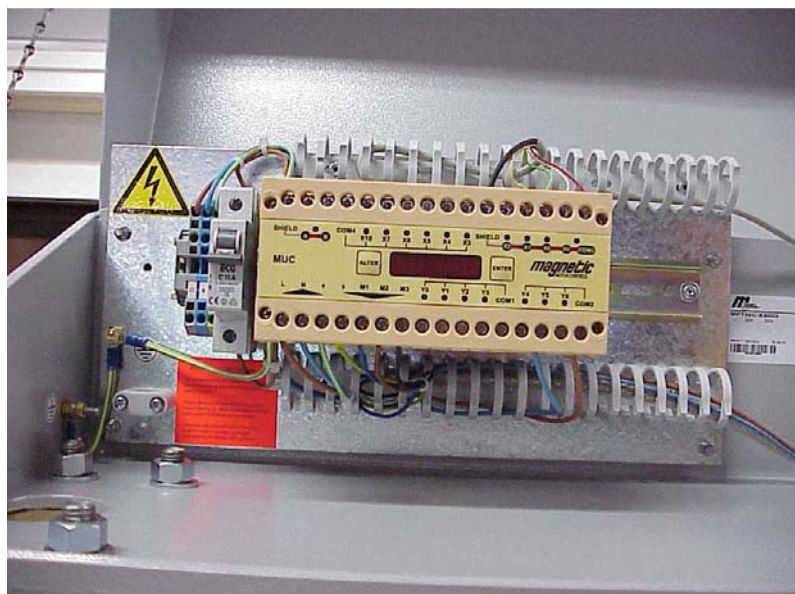


Fig.17

Connecting diagram

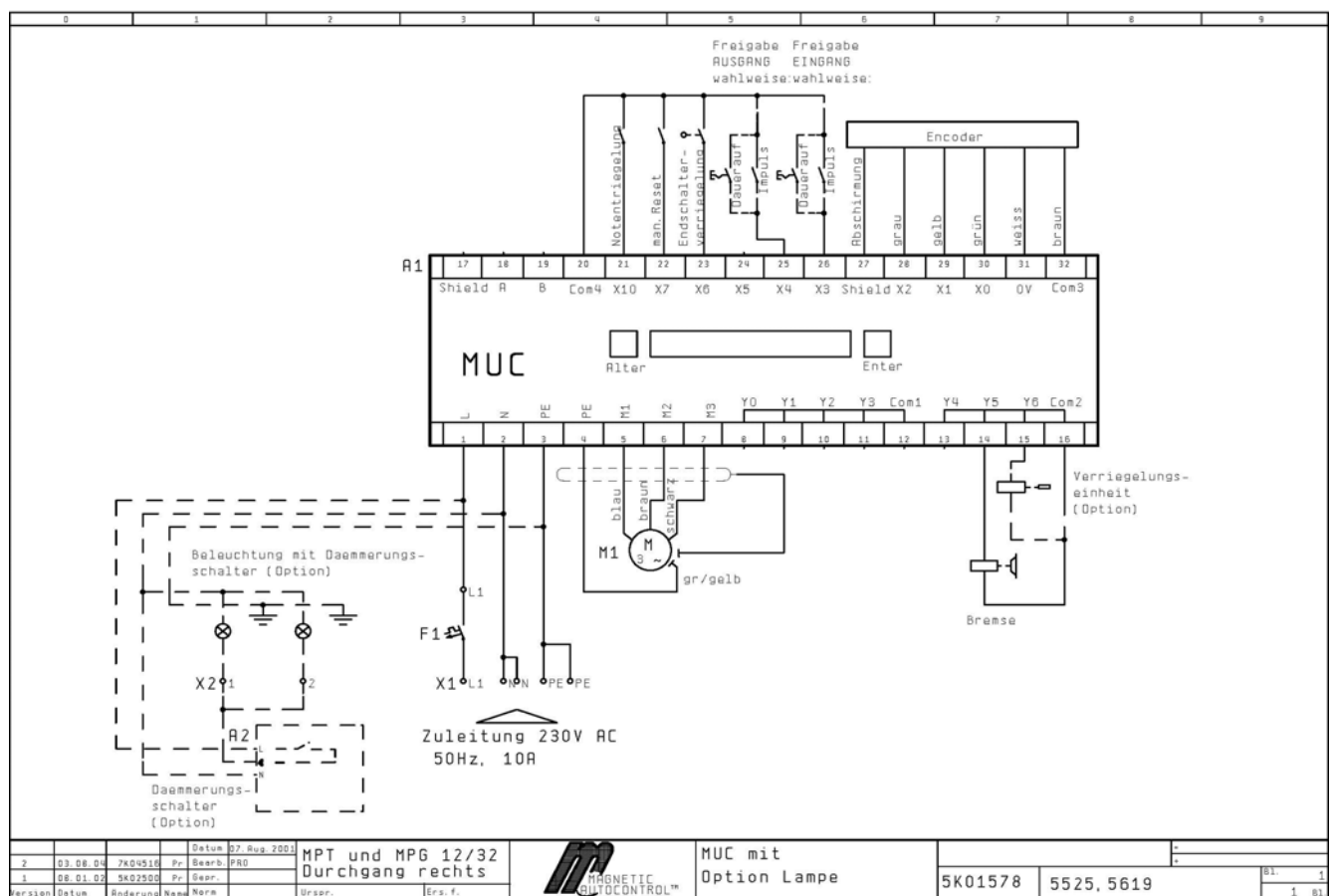


Fig.18 Connecting diagram MPG22 without induction loops
(further diagrams please see point 13).

Fig.18

7. Locking unit für MPG 12/22

The swing door includes an electromechanical locking unit. This locking unit is available in two different versions: In case of power failure it can either be turned freely or remain locked. The locking discs required have to be assembled during the mounting of the swing door (see below drawing).

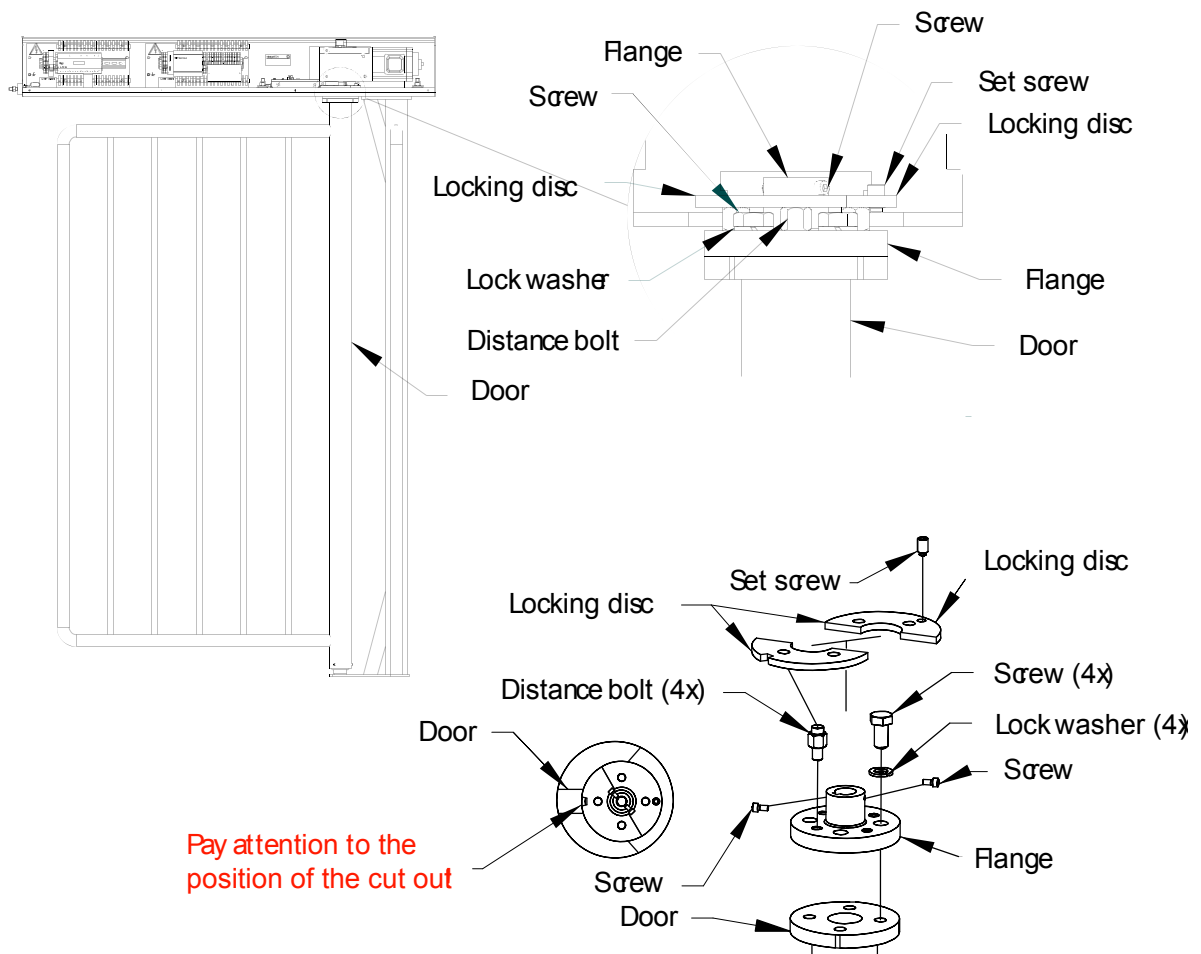


Fig.19

7.1 Installation of locking discs

1. Mount the swing door to the motor flange by means of 4 fixing screws.
2. Put the two locking discs on the distance bolts and pay attention that the disc with the cut out shows in locking direction.
3. Insert the two hexagon socket screws (M6 x 12). The threaded pin that is positioned opposite to the cut out serves the swing door as a final stopper. It is pre-mounted in our factory.



8. Commissioning

Once the mechanical and electrical installation of the swing door has been completed, it can be put into service.

Check before start-up that all assembly and installation instructions have been followed and the electrical connections have been performed correctly.

Once the voltage has been supplied and the safety device has been switched on, the centre column rotates automatically in order to find the starting position and to lock. Afterwards the centre column remains standing and is ready for operation. During this rotation sounds a beep.



9. Technical Support

Should faults occur that could not be rectified by a technician, please contact our authorised after-sales service representative.

In special cases, our Technical Support is available to you.

Please refer to the nameplate on the swing door housing for the data required in the case of queries.

10. Spare parts and accessories

See Figure 18 for the exploded drawing which details the individual parts and their identification numbers.

Spare parts MPG 12

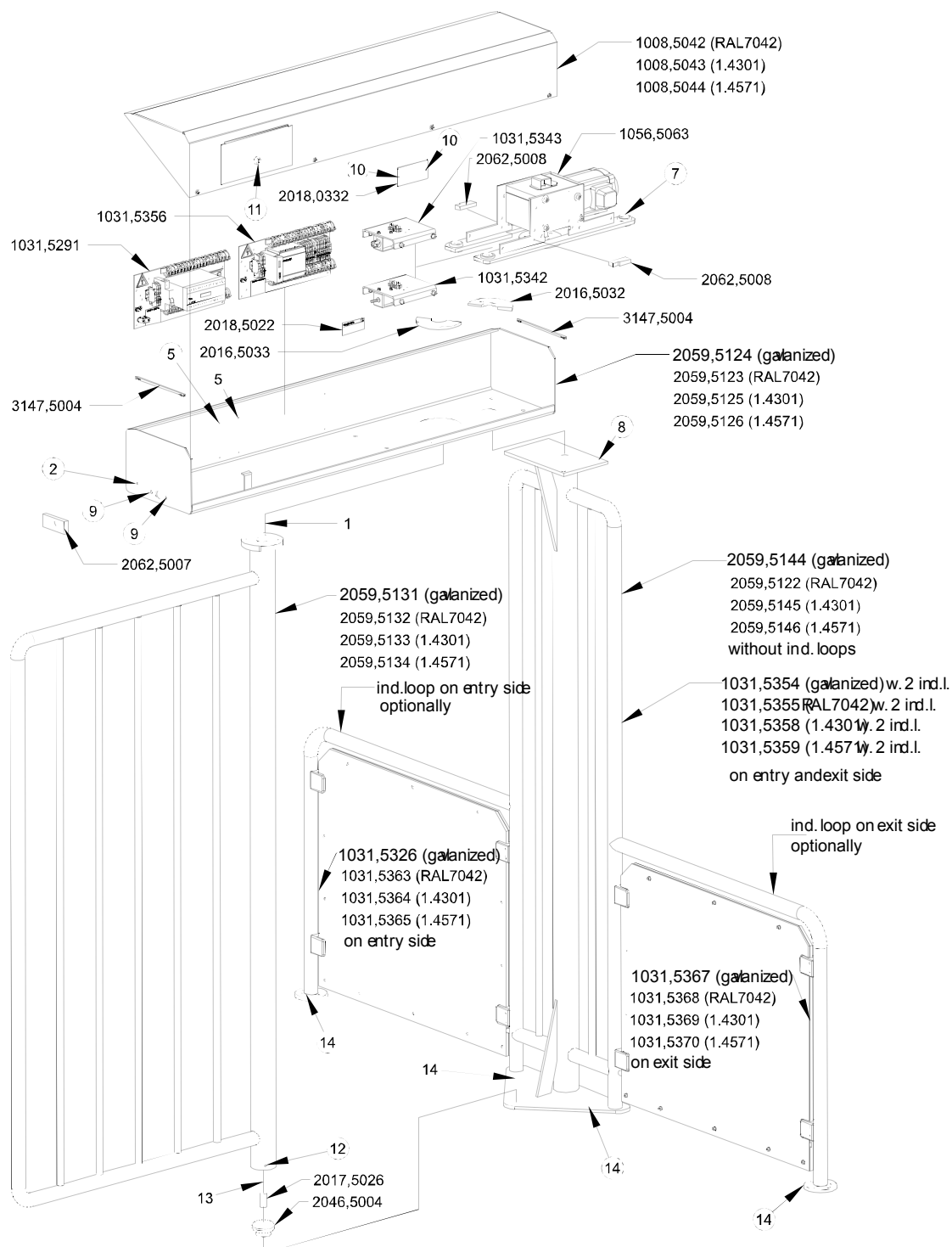


Fig. 20

Spare parts list MPG 12

Small parts (not indicated)

Position	Art.-No.	Designation
1	3098,0025	Lock washer M16 (V2A)
1	3486,5013	Hexagon head screw M16x30 (V2A)
2	3306,0007	Hexagon nut M5 (brass)
2	3490,5003	Oval screw with hexagon socket M5x25 (V2A)
2	3495,0006	Lock washer M5 (V2A)
2	3498,0020	Disc M5 (brass)
5	3306,0033	Hexagon nut M5 (V2A)
5	3307,0008	Locknut M5 (V2A)
5	3490,5003	Oval screw with hexagon socket M5x25 (V2A)
5	3500,0014	Large diameter washer M5 (V2A)
7	3307,5000	Locknut M12 (V2A)
7	3490,5009	Oval screw with hexagon socket M12x60 (V2A)
7	3500,5000	Large diameter washer M12 (V2A)
7	3019,5008	Plain bearing
8	3490,5010	Screw DIN7991 M12x20 (V2A)
9	3485,0043	Screw DIN931 M12x50 (V2A)
9	3307,5000	Nut DIN985 M12 (V2A)
10	3330,0014	Rivet d3x8 (aluminium)
11	3466,0019	Key
12	3138,0040	Ground stud M8x8 (V2A)
13	3098,5000	Lock washer M10 (V2A)
13	3469,5017	Anchor rod of inside thread M10 (V4A)
13	3469,5018	Glass capsule
13	3485,5018	Hexagon head screw M10x55 (V2A)
13	3500,5006	Large diameter washer M10 (V2A)
14	3098,5000	Lock washer M10 (V2A)
14	3469,5017	Anchor rod of inside thread M10 (V4A)
14	3469,5018	Glass capsule
14	3486,5016	Hexagon head screw M10x40 (V2A)
14	3500,5006	Large diameter washer M10 (V2A)

Spare parts MPG22

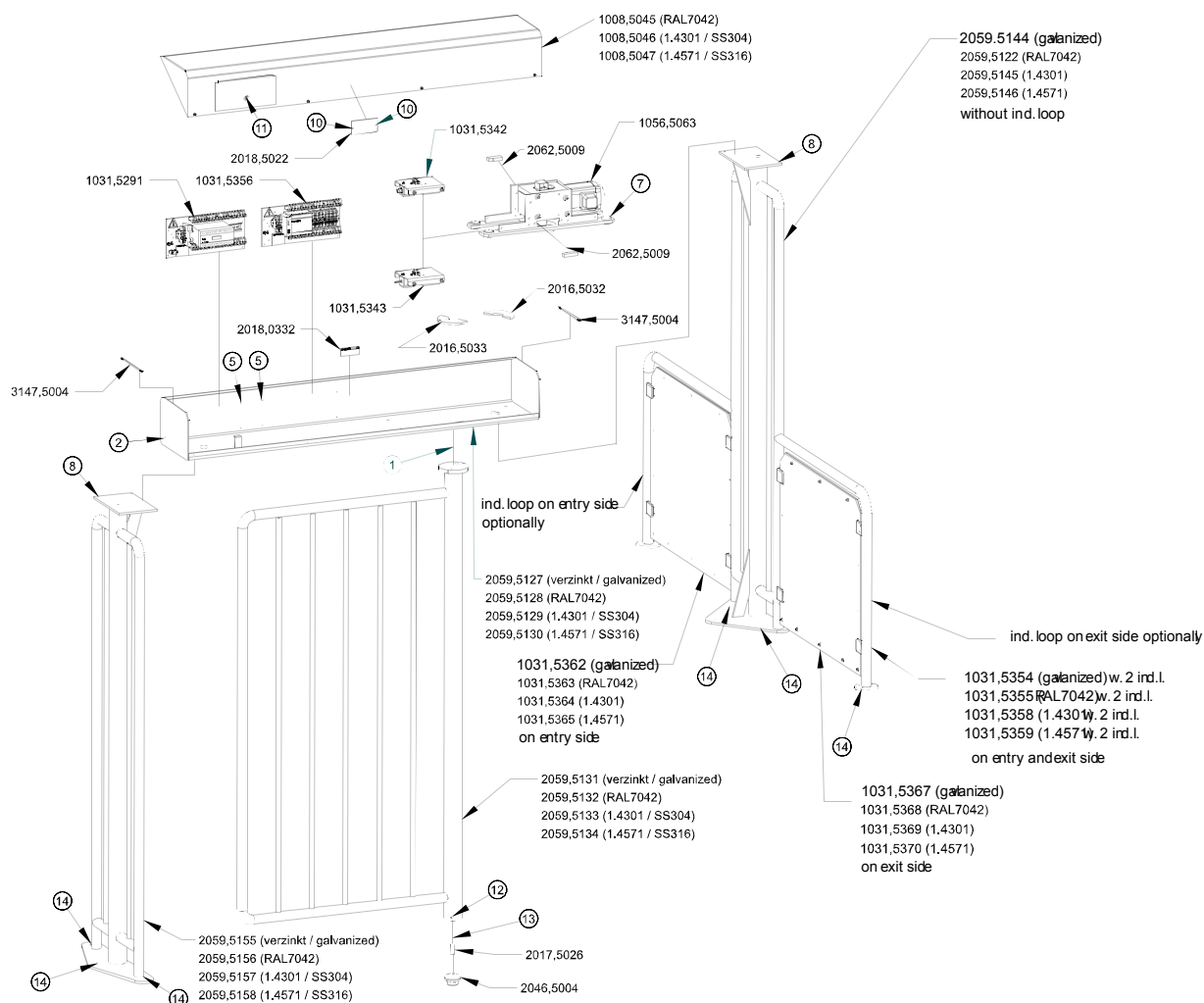


Fig .21

Spare parts list MPG 22

Small parts (not indicated)

Position	Art.-No.	Designation
1	3098,0025	Lock washer M16 (V2A)
1	3486,5013	Hexagon head screw M16x30 (V2A)
2	3306,0007	Hexagon nut M5 (brass)
2	3490,5003	Oval screw with hexagon socket M5x25 (V2A)
2	3495,0006	Lock washer M5 (V2A)
2	3498,0020	Disc M5 (Messing)
5	3306,0033	Hexagon nut M5 (V2A)
5	3307,0008	Locknut M5 (V2A)
5	3490,5003	Oval screw with hexagon socket M5x25 (V2A)
5	3500,0014	Large diameter washer M5 (V2A)
7	3307,5000	Locknut M12 (V2A)
7	3490,5009	Oval screw with hexagon socket M12x60 (V2A)
7	3500,5000	Large diameter washer M12 (V2A)
7	3019,5008	Plain bearing
8	3490,5010	Screw DIN7991 M12x20 (V2A)
10	3330,0014	Rivet d3x8 (aluminium)
11	3466,0019	Key
12	3138,0040	Ground stud M8x8 (V2A)
13	3098,5000	Lock washer M10 (V2A)
13	3485,5018	Hexagon head screw M10x55 (V2A)
13	3500,5006	Large diameter washer M10 (V2A)
14	3098,5000	Lock washer M10 (V2A)
14	3469,5017	Anchor rod of inside thread M10 (V4A)
14	3469,5018	Glass capsule
14	3486,5016	Hexagon head screw M10x40 (V2A)
14	3500,5006	Large diameter washer M10 (V2A)

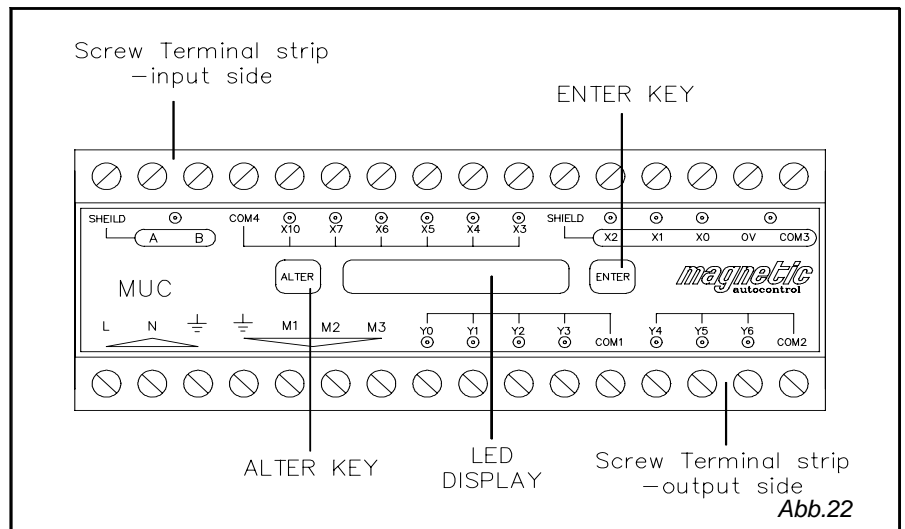
11. Warranty

The manufacturer reserves the right to adapt technological progress without special announcement. Magnetic will be pleased to provide up to date information and possible changes or additions to the operating instructions.

Under the precondition that the operating conditions are complied with, no inadmissible interventions have been made to the interior of the equipment and the equipment has no mechanical damage, a warranty of 2 year after delivery of the equipment applies on all mechanical and electrical components.

12. Control unit MUC 10-A100

The control unit MUC is mounted in a housing with 32 terminals. All terminals are clearly marked for the connection to power supply and to the motor and control inputs.



Supply voltage: 230 / 240V AC 50 Hz to terminals L-N-PE

Motor connection: The torque motor is to be connected to terminals M1- M2- M3.

Locking: Com 2 und Y 6

Motor braking: Com2 und Y5

Locking: Com2 und Y6

Relay outputs:	Home Position	Com1 und Y0
	On	Com1 und Y1
	Off	Com1 und Y2
	Alarm	Com1 und Y3

Control inputs:	Single Output	Com4 und X3
	Single Input	Com4 und X4
	Bridge (Safety L + R)	Com4 und X5
	Locking limit switch	Com4 und X6

For free entry and exit a permanent contact is required instead of an impulse (bridge).

Manual Reset	Com4 und X7
Emergency unlocking	Com4 und X10

Encoder:	Encoder connections:
	Com3 brown
	0v- white
	X0- green
	X1- yellow
	X2- grey
	Shielding Shielding

Operating instructions

The Magnetic MUC control unit is able to operate many Magnetic products. Before leaving our factory all control units are adjusted for the operation of the MPG. This adjustment is firmly programmed and will not change – not even after an eventual loss of voltage.

After putting into operation the supply voltage the following message appears in the display:

MPT 62	←	Magnetic Pedestrian Turnstile
240V50 Hz	←	Voltage and Frequency
© 2001	←	Copyright 2001
Ver 2.0	←	Version Number
STAND CLR	←	Swing door turns into Home Position

As soon as the swing door has reached its home position, it is stopped and locks in this position.

The following message appears in the display:

* closed *	←	Swing door is locked in its home position. Ready for standard operation.
------------	---	--

Standard operation

Once received the entry/exit impulse, between 0.5 and 1 sec., the swing door opens and the adjustable opening duration begins. After ending the swing door returns to its home or original position. The rotating door can be stopped manually at any time.

In this case the following message appears:

STALLED	←	Door is stalled.
---------	---	------------------

Permanent Opening: Via bridging of one of the respective impulse entries the door is set to Permanent Opening.

In this case the following message appears:

Held Open	←	Free entry/exit
-----------	---	-----------------

Manual Reset:

Before leaving our company the control unit MUC is programmed with an automatic Reset, i.e. after an eventual loss of voltage the door automatically returns to operation.

Should you not wish this function the control unit could also be operated with a manual reset, i.e. the MPG locks after return of voltage and waits for the manual release impulse for putting into operation.

The following message appears:

<div>Pulse X7</div>	←	Putting into operation in case of manual reset
---------------------	---	--

Please activate this function only after previous consultation with our factory.

Emergency opening:

In cases of emergency, e.g. fire, panic, etc. the swing door can be released (unlocked) by means of an impulse. Then, the door is freely rotatable.

The following message appears:

<div>Unlocked</div>	←	Unlocked
---------------------	---	----------

Adjustable Parameters

Before leaving our factory, the control unit MUC is programmed according to the values as indicated below. If these values have to be modified, please proceed as described as follows:

NOTE: Switch off the voltage supply and wait until the display has completely extinguished.

1: Press the 'ALTER' button. Simultaneously, actuate the supply voltage. Hold pressed the buttons 'ALTER' + ENTER for 3 sec. approx. The following message appears:

<div>Hardware</div>	←	Display Info
<div>MPT 62</div>	←	Display Info
<div>MPT 62</div>	←	Display Info
<div>BLT Unlock</div>	←	Selection

Press again the „ALTER“ button and in the display appears „Blt Locked“. Afterwards, press the „ENTER“-button.

<div>Remove ARM</div>	←	Turn the door in position Locked. Then confirm by pressing ENTER.
<div>Deflt Yes</div>	←	Factory set selection

2: Press again the „ALTER“ button and in the display appears „Default No“. Afterwards, press the „ENTER“-button.

Operating instructions

Deflt No ← Confirm selection „No“
Press ENTER

3: Display message Auto Reset.
By pressing again the „ALTER“ button the display changes to „Manual Reset“. Confirm the request by pressing the „ENTER“-button.

Auto Reset ← Automatical Reset (factory setting)
Confirm with ENTER

Man. Reset ← Manual Reset / Only after previous
consultation with our factory

4: Adjustance of H/Open (Hold Open time):
Adjustable by means of „ALTER“ button from 1 – 25 sec.
Confirmation of adjusted values by pressing the ENTER-button.

H/open: 4s ← Open holding time (factory setting)

STEP 5: Adjustment of PE Dly (delay time of light barriers)
This time only has to be adjusted when light barriers or other components regarding safety are installed. The PE Dly time causes that the swing door does not immediately close after passing of the safety elements, but only when this adjustable time has expired. This time can be adjusted between 1 and 25 sec. The PE Dly time is independent from the open holding time. Choose the time by pressing the ALTER button and confirm it with ENTER.

Display message:

PE Dly 0s ← Delay time of light barrier
(factory setting)

6: Display-Message: Heat:
Adjustable by means of the button „ALTER“ in steps 0,1,2,3 .
Confirm the adjusted values with the button ENTER.

Adjustment instructions:

Outside temperature	Heating step
> +10°C	0
-5° until +10°C	1
- 15°C until -5°C	2
- 15°C	3

An activation of the heating effects a permanent current feed of the motor in the Closed position (Home position).

6: Display-Message: save YES
If yes, press „ENTER“-button. If no, press „ALTER“-button again and then the ENTER –button.
Start again with point 1.

Operating instructions

Save Yes	←	'ENTER' for saving
Save No	←	'ENTER' to reach again point 1

After saving the following display message appears:

Saved	←	New adjustments are saved
MPG	←	Magnetic Pedestrian Swing door
© 2001	←	Copyright 2001
Ver 2.0	←	Version Number
STAND CLR	←	The MPG turns into Home-Position

After reaching the Home-Position the following display message appears:

closed	←	The MPG is now ready for operation.
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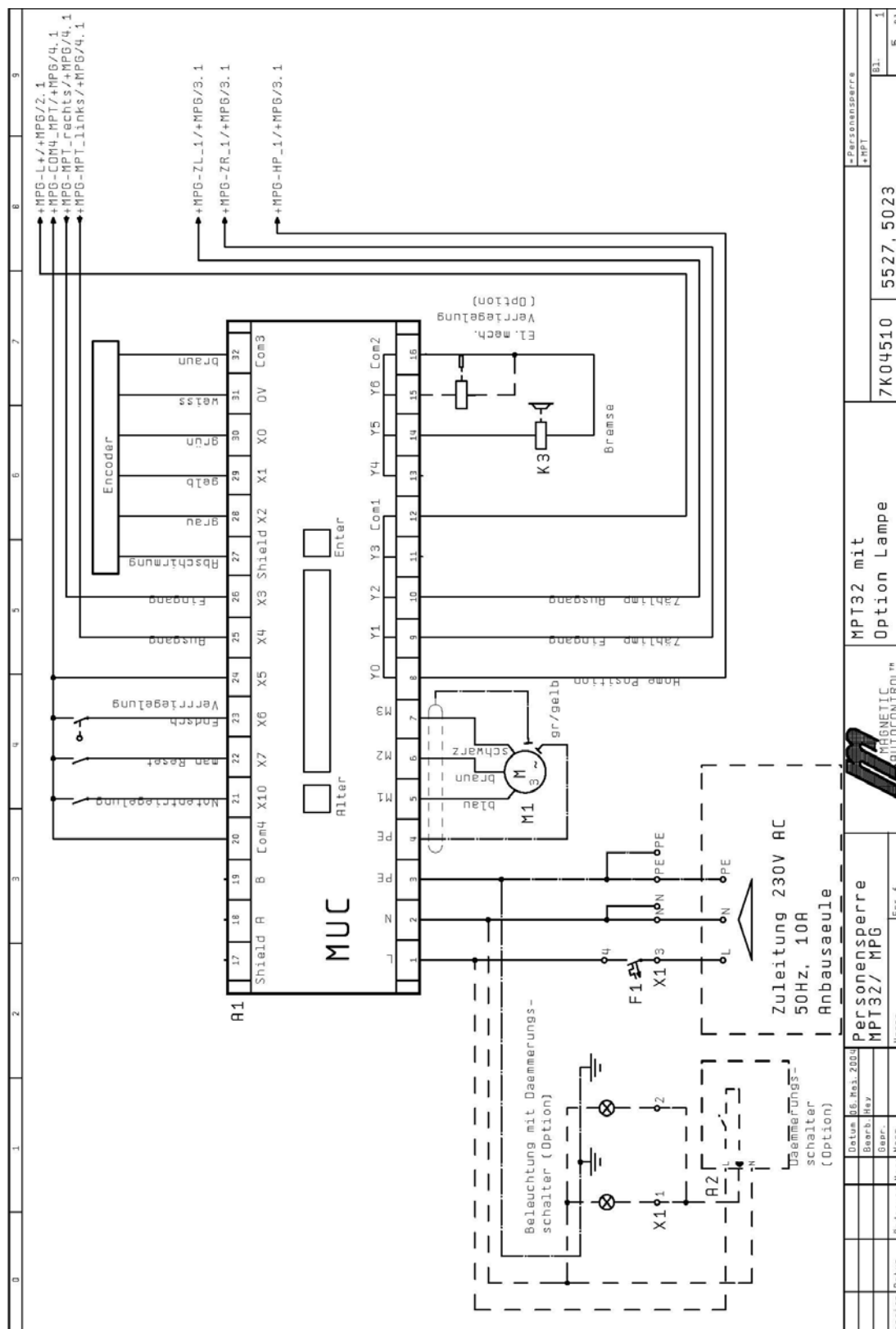


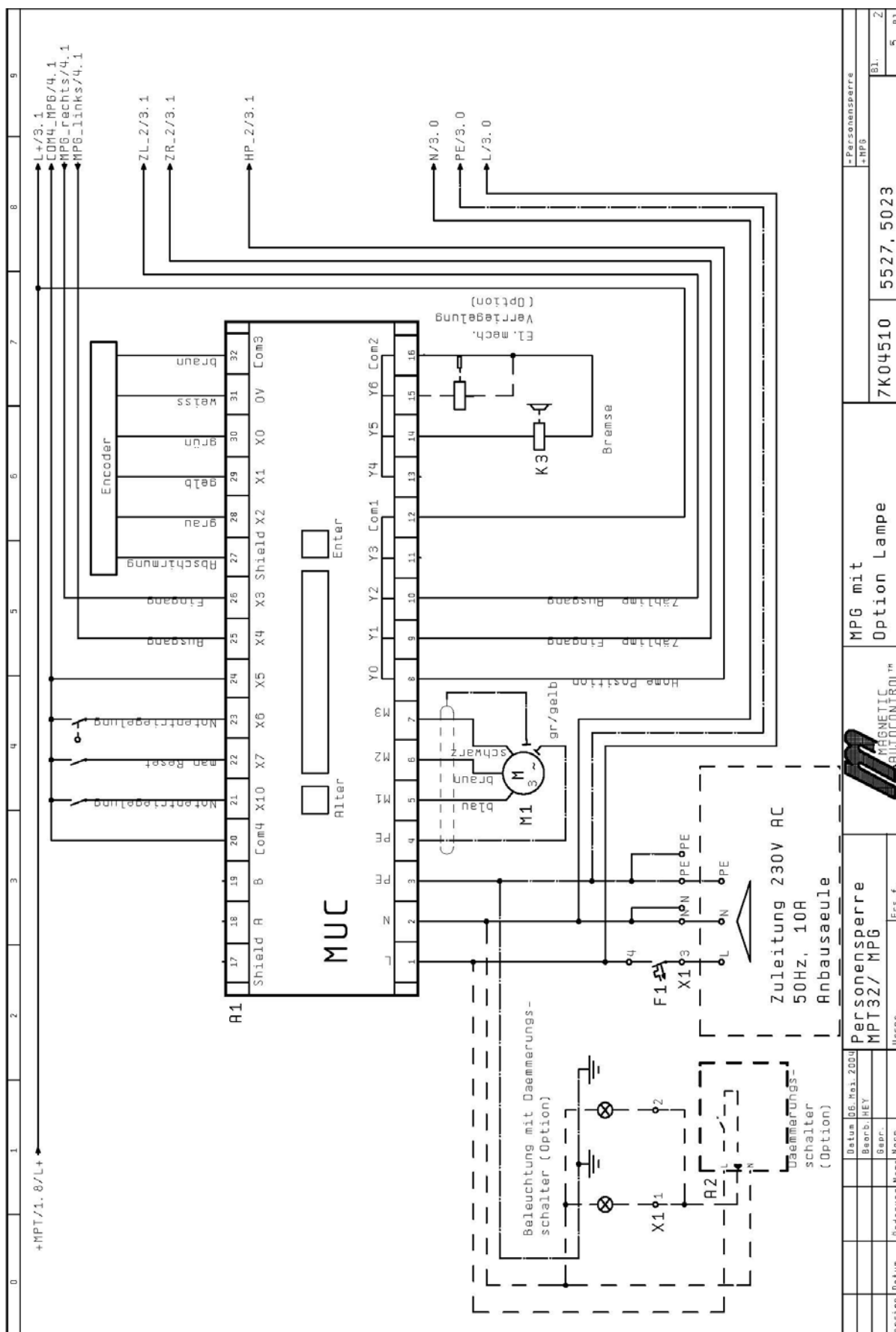
Address of Manufacturer

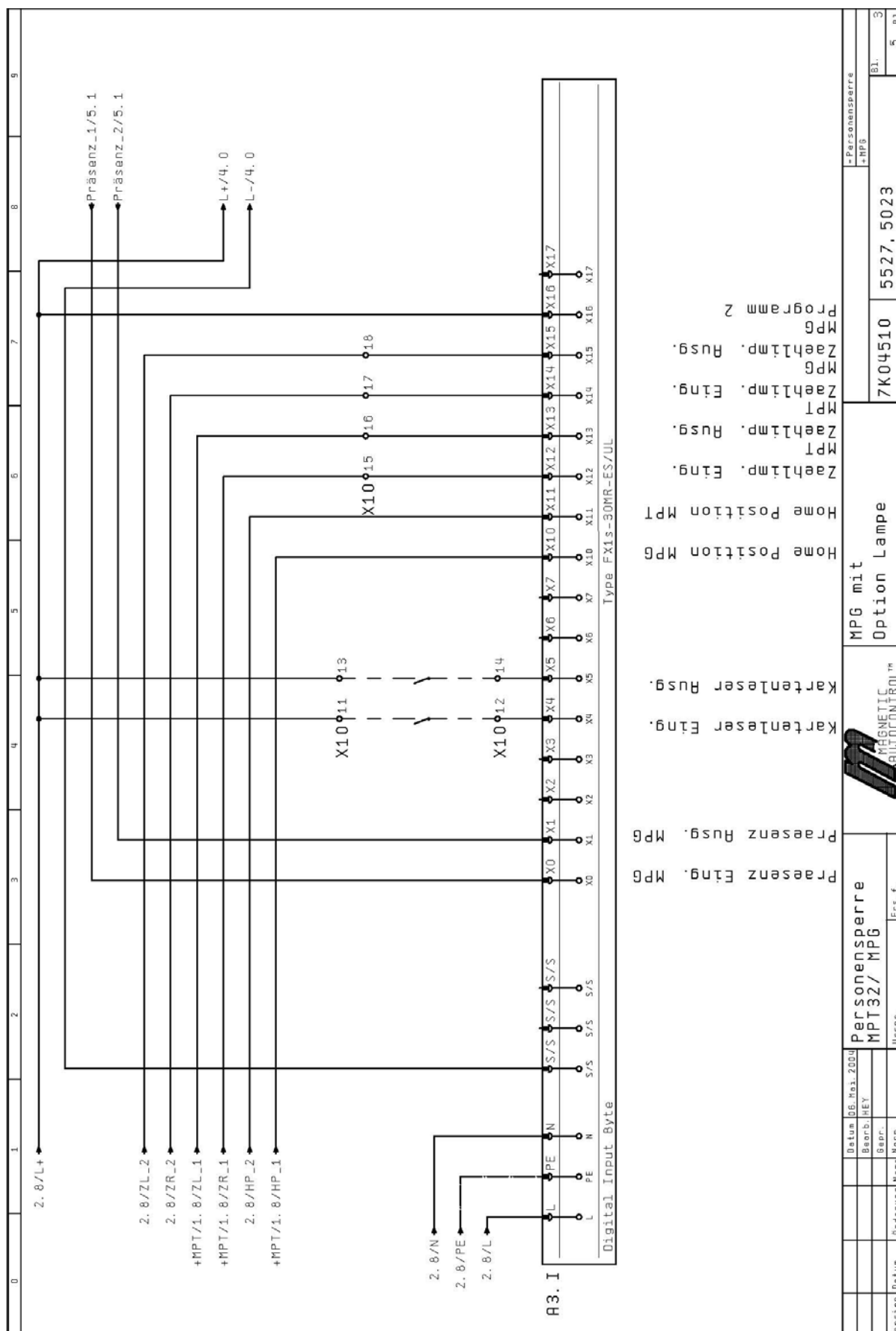
Magnetic Autocontrol GmbH
Grienmatt 20
79650 Schopfheim / Germany
Tel. (49) 7622/695-5
Fax. (49) 7622/695-603
info@ac-magnetic.de
www.ac-magnetic.com

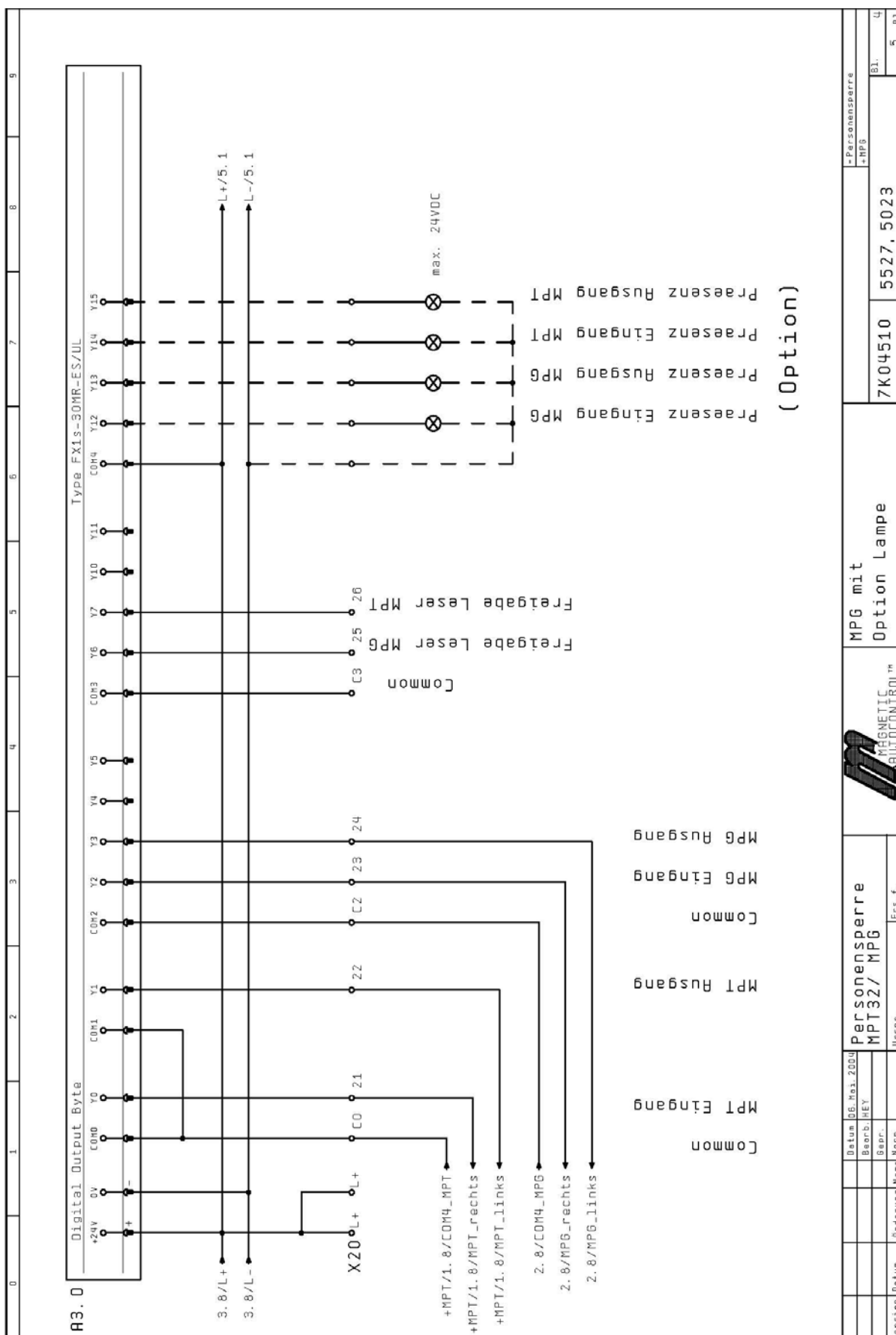
13. Wiring diagrams

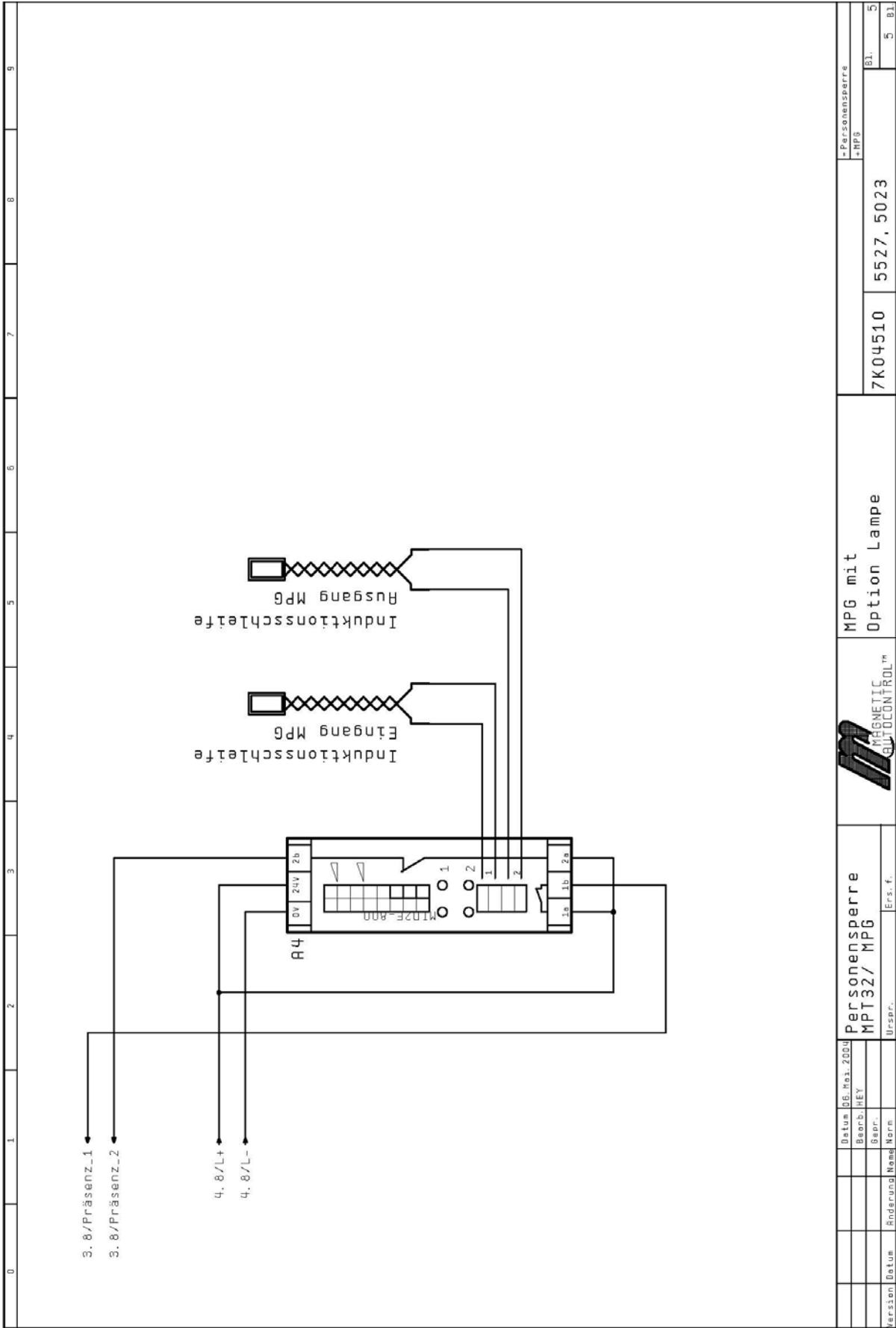
13.1 Diagram MPG 12C–A1x3 with MPT 32 with induction loops











13.2 Diagram MPG 12C-A1x3 with MPT 33
with induction loops

